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Version:

User Manual V1.0 in English for 760GXXK8MB series motherboard.

P/N: 91-181-W76-G0-0E

Symbol description:

-  **Note:** refers to important information that can help you to use motherboard better.
-  **Attention:** indicates that it may damage hardware or cause data loss, and tells you how to avoid such problems.
-  **Warning:** means that a potential risk of property damage or physical injury exists.

More information:

If you want more information about our products, please visit FOXCONN website: www.foxconnchannel.com

Item Checklist:

Thanks for your purchasing WinFast's 760GXX8MB series motherboard. Please check the package; if there are missing or damaged items, contact your distributor as soon as possible.

- ❖ 760GXX8MB Series Motherboard (x1)
- ❖ WinFast Utility CD (x1)
- ❖ User Manual (x1)
- ❖ SATA RAID User Manual (x1)
- ❖ IDE Ribbon Cable (x2)
- ❖ FDD Ribbon Cable (x1)
- ❖ I/O Shield (x1)
- ❖ SPDIF Cable (x1) (optional)
- ❖ USB 2.0 Cable (x1) (optional)
- ❖ S-ATA Signal Cable (x2)
- ❖ S-ATA Power Cable (x1)
- ❖ SiS 964 RAID Installation Support Disk (x1)

Declaration of conformity



HON HAI PRECISION INDUSTRY COMPANY LTD
66 , CHUNG SHAN RD., TU-CHENG INDUSTRIAL DISTRICT,
TAIPEI HSIEN, TAIWAN, R.O.C.

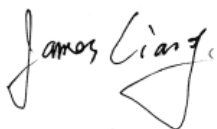
declares that the product

Motherboard
760G XK8MB

is in conformity with

(reference to the specification under which conformity is declared in
accordance with 89/336 EEC-EMC Directive)

- | | | |
|-------------------------------------|-----------------------|--|
| ☒ | EN 55022/A1: 2000 | Limits and methods of measurements of radio disturbance characteristics of information technology equipment |
| ☒ | EN 61000-3-2/A14:2000 | Electromagnetic compatibility (EMC)
Part 3: Limits
Section 2: Limits for harmonic current emissions
(equipment input current $\leq 16A$ per phase) |
| ☒ | EN 61000-3-3/A1:2001 | Electromagnetic compatibility (EMC)
Part 3: Limits
Section 2: Limits of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current $\leq 16A$ |
| ☒ | EN 55024/A1:2001 | Information technology equipment-Immunity characteristics limits and methods of measurement |

Signature : 

Place / Date : TAIPEI/2004

Printed Name : James Liang

Position/ Title : Assistant President

Declaration of conformity



Trade Name: WinFast
Model Name: **760G XK8MB**
Responsible Party: PCE Industry Inc.
Address: 458 E. Lambert Rd.
Fullerton, CA 92835
Telephone: 714-738-8868
Facsimile: 714-738-8838

Equipment Classification: FCC Class B Subassembly
Type of Product: Motherboard
**Manufacturer: HON HAI PRECISION INDUSTRY
COMPANY LTD**
Address: 66 , CHUNG SHAN RD., TU-CHENG
INDUSTRIAL DISTRICT, TAIPEI HSIEN,
TAIWAN, R.O.C.

Supplementary Information:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Tested to comply with FCC standards.

Signature :

A handwritten signature in black ink, appearing to read 'James Liang', with a stylized flourish at the end.

Date : 2004

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 Warning:

1. Attach the CPU and heatsink using silica gel to ensure full contact.
2. It is suggested to select high-quality, certified fans in order to avoid damage to the motherboard and CPU due to high temperature.
3. Never turn on the machine if the CPU fan is not properly installed.
4. Ensure that the DC power supply is turned off before inserting or removing expansion cards or other peripherals, especially when you insert or remove a memory module. Failure to switch off the DC power supply may result in serious damage to your system or memory module.

 Warning:

We cannot guarantee that your system will operate normally while over-clocked. Normal operation depends on the over-clock capacity of your device.

 Attention:

Since BIOS programs are upgraded from time to time, the BIOS description in this manual is just for reference. We do not guarantee that the content of this manual will remain consistent with the actual BIOS version at any given time in the future.

 Attention:

The pictures of objects used in this manual are just for your reference. Please refer to the physical motherboard.

Chapter 1

Thank you for buying WinFast's 760GXX8MB series motherboard. This series of motherboard is one of our new products, and offers superior performance, reliability and quality, at a reasonable price. This motherboard adopts the advanced SiS 760GX + SiS 964 chipset, providing users a computer platform with a high integration-compatibility-performance price ratio.

This chapter includes the following information:

- ❖ Main Features
- ❖ Motherboard Layout

Main Features

Size

- ATX form factor of 9.6" x 9.1"

Microprocessor

- Supports AMD Athlon 64 Processor
- Supports Hyper Transport™ Technology with 8/8 links
- Supports Hyper Transport™ Technology up to 1600MT/s bandwidth

Chipset

- SiS Chipset: SiS 760GX (North Bridge) + SiS 964 (South Bridge)

System Memory

- Two 184-pin DDR DIMM slots
- Supports PC3200/2700/2100 memory
- Supports 128/256/512 Mb technology up to 2 GB

USB 2.0 Ports

- Supports hot-plug
- Eight USB 2.0 ports (four rear panel ports, two onboard USB headers providing four extra ports)
- Supports wake-up from S1 and S3 mode
- Supports USB 2.0 protocol up to 480 Mbps transmission rate

Onboard Serial ATA

- 150 MBps transfer rate
- Supports two S-ATA devices, such as HDD, etc
- Supports RAID 0, RAID 1 and JBOD

Onboard 1394 (optional) IEEE 1394

- Supports hot-plug
- With rate of transmission at 400 Mbps
- Self-configured addressing
- Supports two independent 1394 units synchronously at most, such as HDD, CD-ROM

Onboard LAN

- Supports 10/100 Mbps Ethernet
- LAN interface built-in on board

Onboard Audio

- AC' 97 2.3 Specification Compliant
- Supports SPDIF output
- Onboard Line-in jack, Microphone-in jack, Line-out jack
- Supports 5.1 channels audio (setting via software)

Onboard Graphics

- Built-in a High Performance 256-bit 3D Engine
- Supports Digital Video Interface for LCD Display

AGP 8X Support

- Universal AGP v3.5 Compliant
- Supports AGP 8X/4X Interface Fast Write Transaction

BIOS

- Licensed advanced AWARD (Phoenix) BIOS, supports flash ROM, Plug-and-Play
- Supports IDE, CD-ROM, SCSI HDD or USB device boot up

Green Function

- Supports ACPI (Advanced Configuration and Power Interface)
- Supports S0 (normal), S1 (power on suspend), S3 (suspend to RAM), S4 (suspend to disk-depends on OS), and S5 (soft-off)

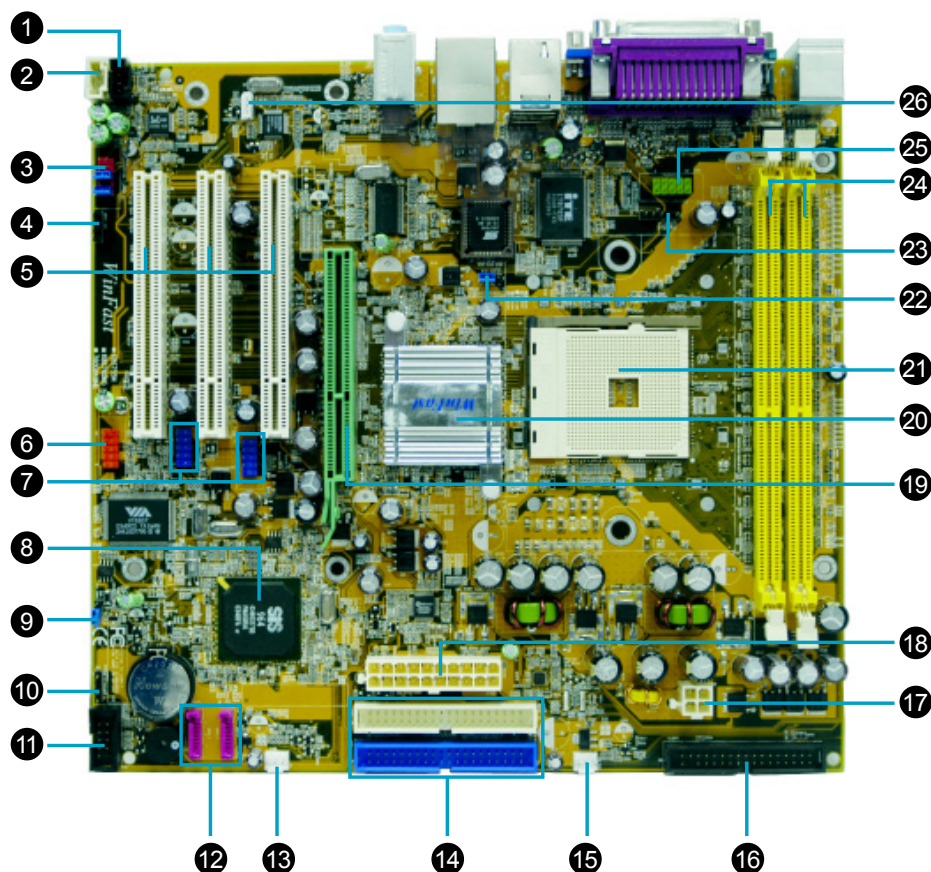
Expansion Slots

- 3 PCI slots
- 1 AGP slot

Advanced Features

- PCI 2.3 Specification Compliant
- Supports Windows 98/2000/ME/XP soft-off
- Supports Wake-up On LAN functions
- Supports PC Health function

Motherboard Layout



- | | | |
|---------------------------------|-----------------------------|------------------------------------|
| 1. CD_IN Connector | 10. Speaker Connector | 19. AGP Slot |
| 2. AUX_IN Connector | 11. Front Panel Connector | 20. North Bridge: SiS760GX Chipset |
| 3. F_Audio Connector | 12. SATA Connector | 21. CPU Socket |
| 4. S/PDIF Connector | 13. System Fan Connector | 22. BIOS-Protection Jumper |
| 5. PCI Slots | 14. IDE Connector | 23. IrDA Header |
| 6. 1394 Connector (optional) | 15. CPU Fan Connector | 24. DDR DIMM Slots |
| 7. F_USB Connector | 16. FDD Connector | 25. COM2 Connector |
| 8. South Bridge: SiS964 Chipset | 17. ATX 12V Power Connector | 26. Wake-up On LAN |
| 9. Clear CMOS Jumper | 18. ATX 20-pin Connector | |

Chapter 2

This chapter introduces the hardware installation process, including the installation of the CPU and memory. It also addresses the connection of your power supply, usage of the rear panel connectors, connection of hard drive and floppy drive data cables, and setting up various other feature of the motherboard. Caution should be exercised during the installation process. Please refer to the motherboard layout prior to any installation and read the contents in this chapter carefully.

This chapter includes the following information:

- ❖ CPU
- ❖ Memory
- ❖ Power Supply
- ❖ Rear Panel Connectors
- ❖ Other Connectors
- ❖ Expansion Slots
- ❖ Jumpers

CPU

This motherboard supports AMD Athlon64 processors with a 1600 MT/s bandwidth and Hyper Thansport™ Technology.

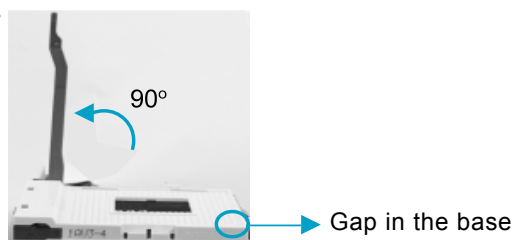
Attention:

The CPU pins must be properly aligned with the holes in the socket, otherwise the CPU may be damaged.

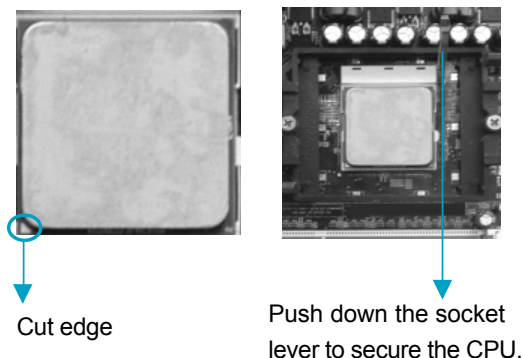
Installation of CPU

Follow these steps to install the CPU.

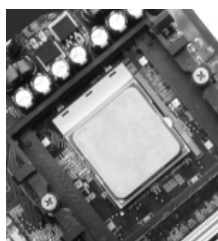
1. Unlock the socket by pressing the lever sideways, then lift it up to a 90° angle.



2. Align the cut edge to the gap in the base of the socket. Carefully insert the CPU into the socket until it fits in place.



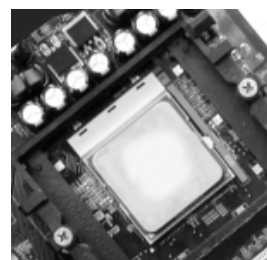
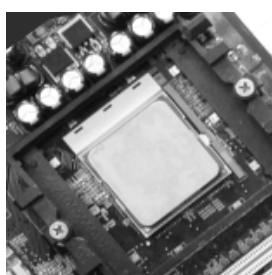
3. When the CPU is in place, press it firmly on the socket while you push down the socket lever to secure the CPU. The lever clicks on the side tab indicates that it is locked.



Installation of CPU Fan

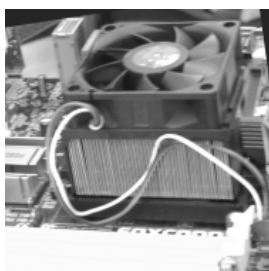
New technology allows processors to run at higher and higher frequencies. To avoid problems arising from high-speed operation, for example, overheating, you need to install the proper fan. The following procedure is provided for reference only, please refer to your CPU fan user guide for the actual procedure.

1. Locate the CPU retention mechanism base (surrounds the CPU socket).
2. If required, apply a light coating of silica gel to the top of the CPU.

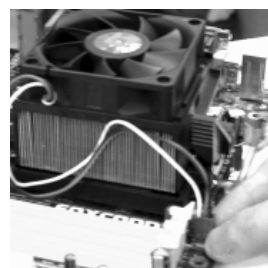


NOTE: The CPU heatsink may have a pre-applied thermal compound. In that case, the silica gel is not required.

3. Attach the fan to the base.



4. Connect the fan's power cable to the appropriate 3-pin terminal on the motherboard.



Warning:

Excessive temperature will severely damage the CPU and system. Therefore, make sure that the cooling fan works normally at all times in order to prevent overheating and damaging to the CPU.

CPU Qualified Vendor List

The following table lists the CPUs that have been tested and qualified for use with this motherboard.

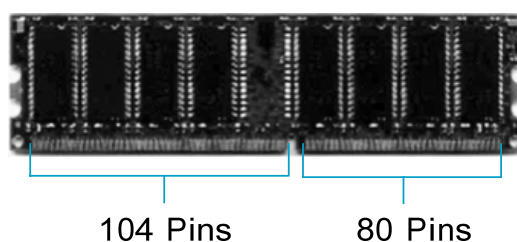
Package	Cache Size	Frequency	Model Number
754 Pin Lidded O μ PGA	512 KB	1800 MHz	2800+
754 Pin Lidded O μ PGA	512 KB	2000 MHz	3000+
754 Pin Lidded O μ PGA	1 MB	2000 MHz	3200+
754 Pin Lidded O μ PGA	512 KB	2200 MHz	3200+
754 Pin Lidded O μ PGA	1 MB	2200 MHz	3400+
754 Pin Lidded O μ PGA	512 KB	2400 MHz	3400+
754 Pin Lidded O μ PGA	1 MB	2400 MHz	3700+

Memory

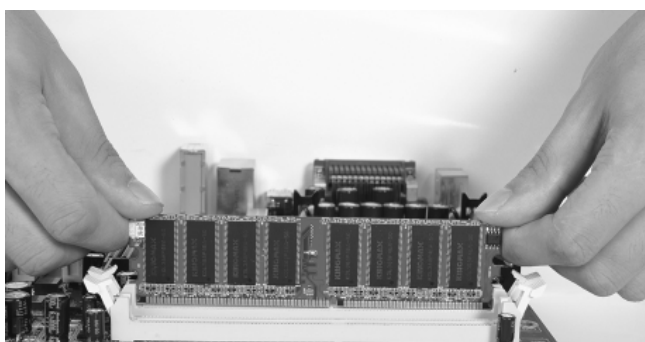
This motherboard includes two 184-pin slots with 266/333/400 MHz Single Channel DDR DRAM interface, You must install at least one memory module to ensure normal operation. If you install two modules, they must be the same speed. Mixing memory modules from different manufactures are not recommended.

Installation of DDR Memory

1. There is only one gap in the middle of the DIMM slot, and the memory module can be fixed in one direction only.
2. Align the memory module to the DIMM slot, and insert the module vertically into the DIMM slot.



3. The plastic clips at both sides of the DIMM slot will lock automatically.



Note:

Be sure to unplug the AC power supply before adding or removing expansion cards or other system peripherals, especially the memory devices, otherwise your motherboard or the system memory might be seriously damaged.

Memory Qualified Vendor List

The following table lists the memory modules that have been tested and qualified for use with this motherboard.

Vendor	Type	Size
Infineon	PC2100 (DDR266)	256 MB
Samsung	PC2100 (DDR266)	256 MB
Kingmax	PC2100 (DDR266)	256 MB
Nanya	PC2100 (DDR266)	512 MB
Hynix	PC2100 (DDR266)	256 MB
Kingston	PC2100 (DDR266)	512 MB
RamBo	PC2700 (DDR333)	256 MB
Twinmos	PC2700 (DDR333)	512 MB
Ramaxel	PC2700 (DDR333)	256 MB
Transcend	PC2700 (DDR333)	512 MB
Nanya	PC2700 (DDR333)	256 MB
Samsung	PC2700 (DDR333)	1 GB
Kingmax	PC2700 (DDR333)	256 MB
Apacer	PC2700 (DDR333)	512 MB
Micron	PC2700 (DDR333)	128 MB
A-DATA	PC3200 (DDR400)	256 MB
Apacer	PC3200 (DDR400)	256 MB
HLX	PC3200 (DDR400)	256 MB
V-DATA	PC3200 (DDR400)	256 MB
GeiL	PC3200 (DDR400)	256 MB
Transcend	PC3200 (DDR400)	512 MB
Twinmos	PC3200 (DDR400)	512 MB
Kingston	PC3200 (DDR400)	512 MB



Note:

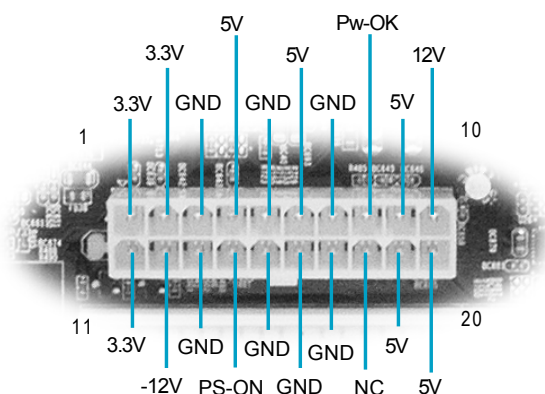
Make sure to use only the tested and qualified DDR modules listed above. Other DDR modules manufactured by other vendors may not be suitable for this motherboard.

Power Supply

This motherboard uses an ATX power supply. In order to avoid damaging any devices, make sure that they have been installed properly prior to connecting the power supply.

ATX Power Connector: PWR1

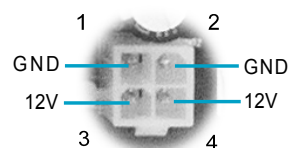
PWR1 is the ATX power supply connector. Make sure that the power supply cable and pins are properly aligned with the connector on the motherboard. Firmly plug the power supply cable into the connector and make sure it is secure.



ATX Power Connector

ATX 12V Power Connector: PWR2

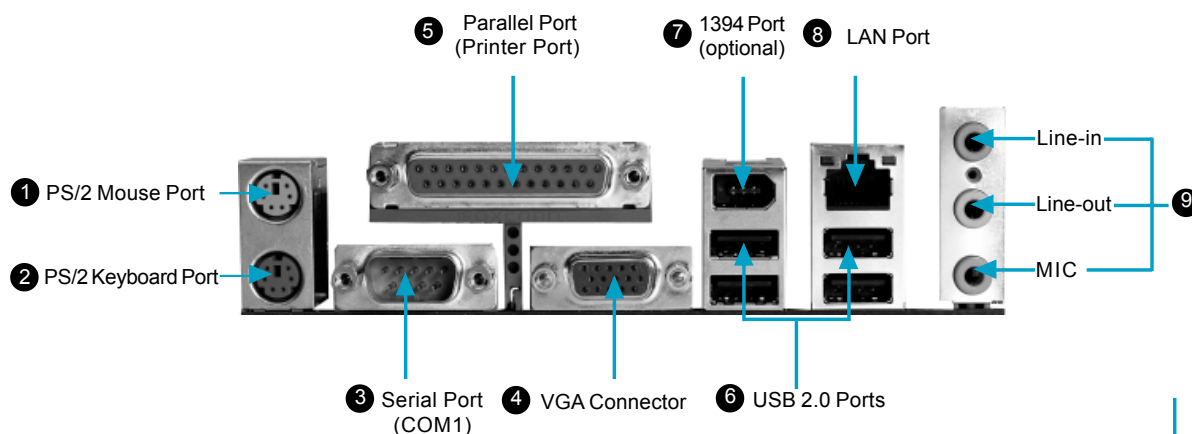
The 4 pin ATX 12 V power supply connects to PWR2 and provides power to the CPU.



ATX 12V Power Connector

Rear Panel Connectors

This motherboard provides the following ports as below:



❶ PS/2 Mouse Port

This green 6-pin connector is for a PS/2 mouse.

❷ PS/2 Keyboard Port

This purple 6-pin connector is for a PS/2 keyboard.

❸ Serial Port: COM1

This 9-pin COM1 port is for pointing devices or other serial devices.

❹ VGA Connector

The VGA connector is for output to VGA-compatible device.

❺ Parallel Port: Printer Port

The 25-pin port connects a parallel printer, a scanner, or other devices.

❻ USB Ports

These four Universal Serial Bus (USB) ports are available for connecting USB 2.0/1.1 devices.

❼ 1394 Port (optional)

This digital interface supports electronic devices such as digital cameras, scanners, and printers.

❽ LAN Port

This port allows connection to a Local Area Network (LAN) through a network hub.

❾ Line-in jack, Line-out jack, Microphone jack

When using a two-channel sound source, the Line-out jack is used to connect to speaker or headphone; the Line-in port connects to an external CD player, tape player or other audio device. The Microphone jack is used to connect to the microphone.

Other Connectors

This motherboard includes interfaces for Floppy, IDE HDD, SATA, USB, 1394, IR module, CPU fan, system fan, and others.

FDD Connector: FLOPPY

This motherboard includes a standard FLOPPY interface, supporting 360 K, 720 K, 1.2 M, 1.44 M, and 2.88 M FDDs.

HDD Connectors: PIDE & SIDE

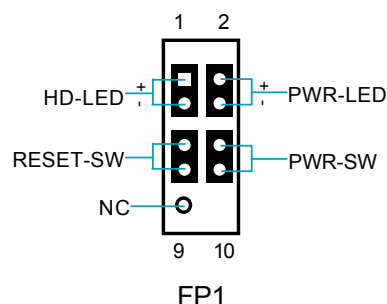
These connectors support the provided Ultra DMA133/100/66 IDE hard disk ribbon cable. Connect the cable's blue connector to the primary (recommended) or secondary IDE connector, then connect the gray connector to the Ultra DMA133/100/66 slave device (hard disk drive) and the black connector to the Ultra DMA133/100/66 master device. If you install two hard disks, you must configure the second drive as a slave device by setting its jumper accordingly. Refer to the hard disk documentation for the jumper settings.

Attention:

Ribbon cables are directional, therefore, be sure to always connect with the cable on the same side as pin 1 of the PIDE/SIDE or FLOPPY connector on the motherboard.

Front Panel Connector: FP1

This motherboard includes one connector for connecting the front panel switch and LED indicator.



Hard Disk LED Connector (HD-LED)

The connector connects to the case's IDE indicator LED indicating the activity status of hard disks.

Reset Switch (RESET-SW)

Attach the connector to the Reset switch on the front panel of the case; the system will restart when the switch is pressed.

Power LED Connector (PWR-LED)

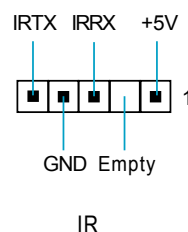
Attach the connector to the power LED on the front panel of the case. The Power LED indicates the system's status. When the system is in S0 status, the LED is on. When the system is in S1 status, the LED is blink. When the system is in S3, S4, S5 status, the LED is off.

Power Switch Connector (PWR-SW)

Attach the connector to the power button on the front panel of the case. Pushing this switch allows the system to be turned on and off rather than using the power supply button.

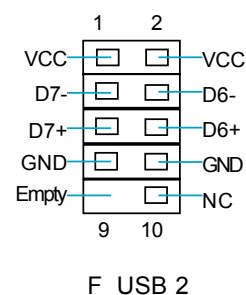
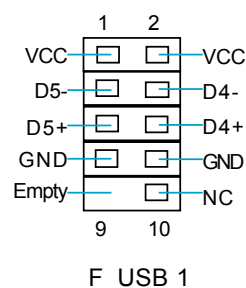
IrDA Header: IR

The IrDA infrared transmission allows your computer to send and receive data via an infrared ray. The relevant parameters for the BIOS Integrated Peripherals should be set prior to using this function.



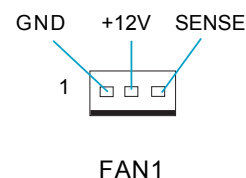
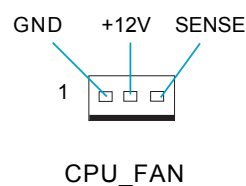
USB Header: F_USB 1, F_USB 2

Besides four USB ports on the rear panel, the series of motherboard also have two 10-pin headers on board which may connect to front panel USB cable(optional) to provide additional four USB ports.



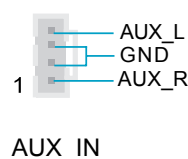
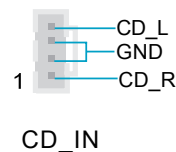
Fan Connectors: CPU_FAN, FAN1

There are two fan headers on this motherboard. These fans will be automatically turned off after the system enters suspend mode.



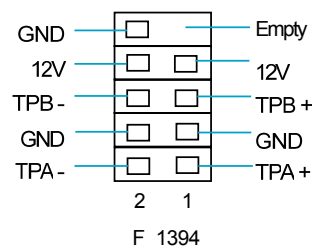
Audio Connectors: CD_IN, AUX_IN

CD_IN, AUX_IN is Sony standard CD audio connector. It can be connected to a CD-ROM drive through a CD audio cable.



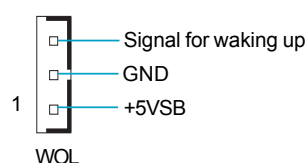
1394 Header: F_1394 (optional)

The 1394 expansion cable can be connected to either the front (provided that the front panel of your chassis is equipped with the appropriate interface) or rear panel of the chassis.



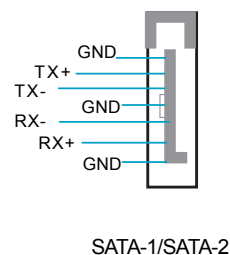
Wake-up On LAN: WOL

Through the Wake-Up On LAN function, a wake event occurring from the network can wake up the system. To utilize this function, please be sure to use an ATX 12 V power supply with a 5VSB line capable of delivering a current of at least 1 A, and a LAN adapter which supports this function. Then connect the header to the relevant connector on the LAN adapter, set “MACPME Power Up Control” to “Enabled” in the “Power Management Setup” section of the CMOS SETUP. Save and exit, then boot the operating system once to make sure this function takes effect.



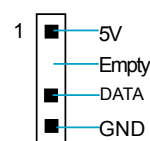
S-ATA Connectors: SATA-1, SATA-2

The S-ATA header is used to connect the S-ATA device to the motherboard. These connectors support the thin Serial ATA cables for primary internal storage devices. The current S-ATA interface allows up to 150 MB/s data transfer rate.



SPDIF Out Connector: SPDIF_OUT

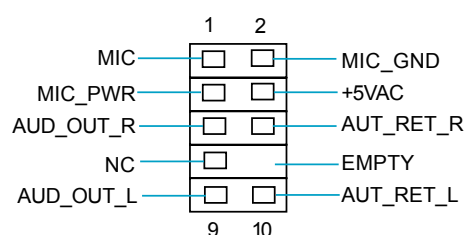
The SPDIF out connector is capable of providing digital audio to external speakers or compressed AC3 data to an external Dolby digital decoder.



SPDIF OUT

Audio Interface: F_AUDIO

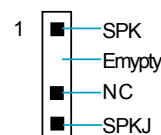
The audio interface provides two kinds of audio output choices: the Front Audio, the Rear Audio. Their priority is sequenced from high to low (Front Audio to Rear Audio). If headphones are plugged into the front panel of the chassis (using the Front Audio), then the Line-out (Rear Audio) on the rear panel will not work. If you do not want to use the Front Audio, pin 5 and 6, pin 9 and 10 must be shorted, and then the signal will be sent to the rear audio port.



F_AUDIO

Speaker Connector: SPK

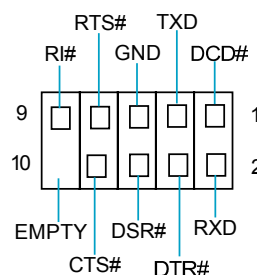
The speaker connector is used to connect speaker of the chassis.



SPEAKER

COM2: Additional COM Header

This board provides an additional serial COM header for your computer. You need connect the switching-cable to this header first, and then connect the serial COM device with the port of the switching-cable.



COM2

Expansion Slots

This motherboard includes three 32-bit Master PCI bus slots and one AGP slot.

PCI Slots

The expansion cards can be installed in the three PCI slots. When you install or take out such cards, you must make sure that the power plug has been pulled out. Please carefully read the instructions provided for such cards, and install and set the necessary hardware and software for such cards, such as the jumper or BIOS settings.

AGP Slot

This motherboard has an AGP slot that supports 1.5 V AGP cards. AGP is an interfacing specification designed to display 3D images. It provides a specialized 66 MHz, 32-bit channel to allow the graphic controller to directly access the master memory and supports 4X and 8X speeds.

Installing an expansion card

1. Before installing the expansion card, read the documentation that came with it and make the necessary hardware settings for the card.
2. Be sure to unplug the power cord before adding or removing expansion cards.
3. Remove the bracket opposite the slot that you intend to use.
4. Align the card connector with the slot and press firmly until the card is completely seated on the slot.
5. Secure the card to the chassis with the screw you removed earlier.

AGP Qualified Vendor List

The following table lists the AGP cards that have been tested and qualified for use with this motherboard.

Vendor	Type	Video Memory
GeForce2	GeForce2 MX 400	32 MB
LeadTek	LeadTek S650	128 MB
GA-GF	GA-GF 1280 GeForce 2 MX	32 MB
ELSA	ELSA 511	64 MB
UNIKA	UNIKA 7917 GF 4 MX 440	64 MB
ATI	ATI 9700 8X	128 MB
MSI	MSI-5800	128 MB
MSI	MSI-5600 (8912)	128 MB
MSI	MSI-5200 (8923)	128 MB
MSI	MSI-Mx440 (8X,8891)	64 MB
MSI	MSI-5200 (8911)	128MB

Note:

Make sure to use only the tested and qualified AGP cards listed above. Other AGP cards manufactured by other vendors may not be suitable for this motherboard.

Jumpers

Users can change the jumper settings on this motherboard if needed. This section explains how to use the various functions of this motherboard by changing the jumper settings. Users should read the following contents carefully prior to modifying any jumper settings.

Description of Jumpers

1. For the jumpers on this motherboard, pin 1 can be identified by the silk-screen printed “△” next to it. However, in this manual, pin 1 is simply labeled as “1”.
2. The following table provides some explanation of the jumper pin settings. Users should refer to this when adjusting jumper settings.

Jumper	Diagram	Definition	Description
		1-2	Set pin 1 and pin 2 closed
		2-3	Set pin 2 and pin 3 closed
		Closed	Set the pin closed
		Open	Set the pin opened

Clear CMOS Jumper: CLS_CMOS

This motherboard uses the CMOS RAM to store all the set parameters. The CMOS can be cleared by removing the CMOS jumper.

How to clear CMOS?

1. Turn off the AC power supply and connect pins 1 and 2 together using the jumper cap.
2. Return the jumper setting to normal (locked pins 2 and 3 together with the jumper cap).
3. Turn the AC power supply back on.

Normal status
(default)



Clear CMOS



Clear CMOS Jumper

Warning:

1. Disconnect the power cable before adjusting the jumper settings.
2. Do not clear the CMOS while the system is turned on.

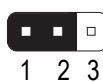
BIOS-Protection Jumper: FWH_EN

The motherboard BIOS is inside the FWH. If the jumper FWH_EN is set as disabled (Pin2 & Pin3), the system BIOS is protected from being attacked by a serious virus, such as the CIH virus. You will be unable to flash the BIOS to the motherboard when the system BIOS is protected.

Flash Write
Disable



Flash Write
Enable
(Default)



BIOS-Protection Jumper

Chapter 3

This chapter tells how to change system settings through the BIOS Setup menus. Detailed descriptions of the BIOS parameters are also provided.

You have to run the Setup Program when the following cases occur:

1. An error message appears on the screen during the system POST process.
2. You want to change the default CMOS settings.

This chapter includes the following information:

- ❖ Enter BIOS Setup
- ❖ Main Menu
- ❖ Standard CMOS Features
- ❖ BIOS Features
- ❖ Advanced BIOS Features
- ❖ Advanced Chipset Features
- ❖ Integrated Peripherals
- ❖ Power Management Setup
- ❖ PnP/PCI Configurations
- ❖ PC Health Status
- ❖ Frequency/Voltage Control
- ❖ Load Fail-Safe Defaults
- ❖ Load Optimized Defaults
- ❖ Set Supervisor/User Password
- ❖ Save & Exit Setup
- ❖ Exit Without Saving

Enter BIOS Setup

The BIOS is the communication bridge between hardware and software, correctly setting up the BIOS parameters is critical to maintain optimal system performance. Power on the computer, when the following message briefly appears at the bottom of the screen during the POST (Power On Self Test), press <Del> key to enter the Award BIOS CMOS Setup Utility.

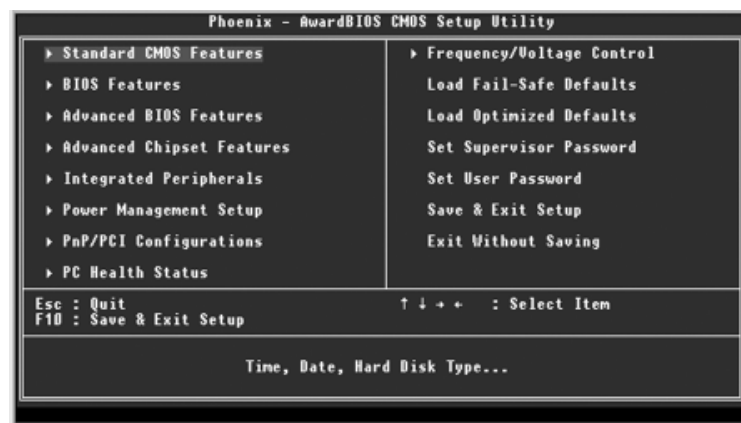
Press TAB to show POST screen, DEL to enter SETUP.

Note:

We do not suggest that you change the default parameters in the BIOS Setup, and we shall not be responsible for any damage that results from any changes that you make.

Main Menu

The main menu allows you to select from the list of setup functions and two exit choices. Use the arrow keys to select among the items and press <Enter> to accept or go to the sub-menu.



Main Menu

The items in the BIOS Setup main menu are explained below:

Standard CMOS Features

The basic system configuration can be set up through this menu.

BIOS Features

The general system features can be set up through this menu.

Advanced BIOS Features

The advanced system features can be set up through this menu.

Advanced Chipset Features

The values for the chipset can be changed through this menu, and the system performance can be optimized.

Integrated Peripherals

Onboard peripherals can be set up through this menu.

Power Management Setup

All the items of Green function features can be set up through this menu.

PnP/PCI Configurations

The system's PnP/PCI settings and parameters can be modified through this menu.

PC Health Status

This will display the current status of your PC.

Frequency/Voltage Control

Frequency and voltage settings can be adjusted through this menu.

Load Fail-Safe Defaults

The fail-safe default BIOS settings can be loaded through this menu.

Load Optimized Defaults

The optimal performance settings can be loaded through this menu, however, the stable default values may be affected.

Set Supervisor/User Password

The supervisor/user password can be set up through this menu.

Save & Exit Setup

Save CMOS value settings to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

Standard CMOS Features

This sub-menu is used to set up the standard CMOS features, such as the date, time, HDD model and so on. Use the arrow keys select the item to set up, and then use the <PgUp> or <PgDn> keys to choose the setting values.



Standard CMOS Features Menu

Date

This option allows you to set the desired date (usually as the current date) with the <day><month><date><year> format.

day	weekday from Sun. to Sat., defined by BIOS (read-only).
month	month from Jan. to Dec.
date	date from 1 st to 31 st , can be changed by using the keyboard.
year	year, set up by users.

Time

This option allows you to set up the desired time (usually as the current time) with <hour><minute><second> format.

IDE Channel 0/1 Master/Slave & IDE Channel 2/3 Master

These categories identify the HDD types of 4 IDE channels installed in the computer system. There are three choices provided for the Enhanced IDE BIOS: None, Auto, and Manual. "None" means no HDD is installed or set; "Auto" means the system can auto-detect the hard disk when booting up; by choosing "Manual" and changing Access Mode to "CHS", the related information should be entered manually. Enter the information directly from the keyboard and press <Enter>:

Cylinder	Number of cylinders	Head	Number of heads
Precomp	Write pre-compensation	Landing Zone	Landing Zone
Sector	Number of sectors		

Award (Phoenix) BIOS can support 4 HDD modes: CHS, LBA and Large or Auto mode.

CHS	For HDD<528 MB
LBA	For HDD>528 MB & supporting LBA (Logical Block Addressing)
Large	For HDD>528 MB but not supporting LBA
Auto	Recommended mode

Drive A/B

This option allows you to select the kind of FDD to be installed, including “None”, [360 K, 5.25 in], [1.2 M, 5.25 in], [720 K, 3.5 in], [1.44 M, 3.5 in] and [2.88 M, 3.5 in].

Video

The following table is provided for your reference in setting the display mode for your system.

EGA/VGA	Enhanced Graphics Adapter / Video Graphic Array. For EGA, VGA, SEGA, SVGA, or PGA monitor adapters.
CGA 40	Color Graphic Adapter, powering up in 40 column mode.
CGA 80	Color Graphic Adapter, powering up in 80 column mode.
MONO	Monochrome adapter, including high resolution monochrome adapters.

Halt On

This category determines whether or not the computer will stop if an error is detected during powering up.

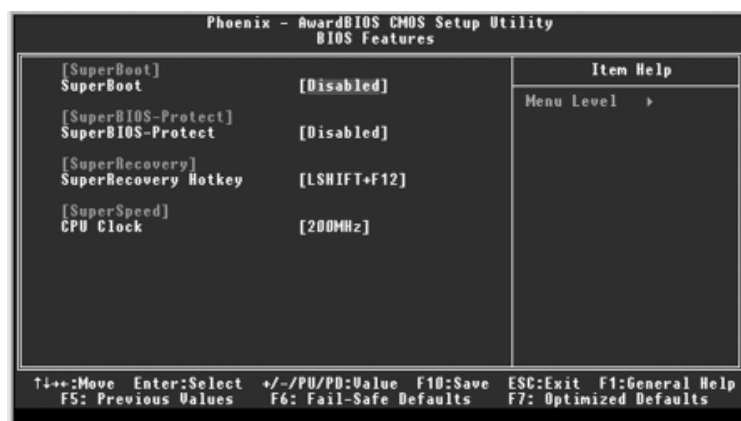
All Errors	Whenever the BIOS detects a nonfatal error, the system will stop and you will be prompted.
No Errors	The system boot will not stop for any errors that may be detected.
All, But Keyboard	The system boot will not stop for a keyboard error; but it will stop for all other errors.
All, But Diskette	The system boot will not stop for a diskette error; but it will stop for all other errors.
All, But Disk/Key	The system boot will not stop for a keyboard or a disk error, but it will stop for all other errors.

Memory

This is a display-only category, determined by POST (Power On Self Test) of the BIOS.

Base Memory	The BIOS POST will determine the amount of base (or conventional) memory installed in the system.
Extended Memory	The BIOS determines how much extended memory is present during the POST.
Total Memory	Total memory of the system.

BIOS Features



BIOS Features Menu

❖ [SuperBoot] SuperBoot (Default: Disabled)

SuperBoot allows system-relevant information to be stored in CMOS upon the first normal startup of your PC, and the relevant parameters will be restored to help the system start up more quickly on each subsequent startup.

❖ [SuperBIOS-Protect] SuperBIOS-Protect (Default: Disabled)

Super-BIOS Protect function protects your PC from being affected by viruses, e.g. CIH.

❖ [SuperRecovery] SuperRecovery Hotkey (Default: LSHIFT+F12)

SuperRecovery provides the users with an excellent data protection and HDD recovery function.

❖ [SuperSpeed] CPU Clock (depend on CPU)

The conventional over-clock method uses the jumpers on the motherboard, and it is both troublesome and apt to errors. By using SuperSpeed, a CPU can be overclocked by keying in the desired in the CPU clock range.

⚡ Warning:

Be sure your selection is right. CPU overclock will be dangerous!
We will not be responsible for any damage caused.

Advanced BIOS Features



Advanced BIOS Features Menu

❖ Hard Disk Boot Priority

This option is used to select the priority for HDD startup. After pressing <Enter>, you can select the HDD using the <PageUp>/<PageDn> or Up/Down arrow keys, and change the HDD priority using <+> or <->; you can exit this menu by pressing <Esc>.

❖ Virus Warning (Default: Disabled)

This option is used to set up the virus warning message for the IDE HDD boot sector. When set to Enabled, a warning message will appear on the screen if any program wants to write any information to this sector, and will give an audible warning.

Note: Such function provides protection to the startup sector only; it does not protect the entire hard disk.

❖ Quick Power On Self Test (Default: Enabled)

With this function enabled, the system will skip the normal test while starting up, therefore reducing the overall start up time.

❖ First/Second/Third Boot Device (Default: Floppy/Hard Disk/LS120)

This option allows you to set the boot device sequence.

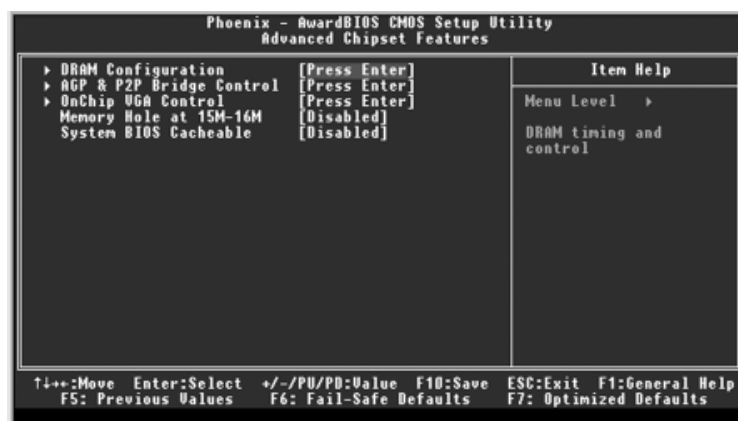
❖ Boot Other Device (Default: Enabled)

With this function set to Enabled, the system will boot from some other devices if the first/second/third starting devices failed.

❖ Security Option (Default: Setup)

When it is set to Setup, a password is required to enter the CMOS Setup screen; when it is set to System, a password is required not only to enter CMOS Setup, but also to startup your PC, as well.

Advanced Chipset Features



Advanced Chipset Features Menu

❖ DRAM Configuration

Press <Enter> to set the items about DRAM Configuration.

❖ AGP & P2P Bridge Control

Press <Enter> to set the items about AGP & P2P Bridge.

❖ OnChip VGA Control

Press <Enter> to set the items about OnChip VGA Control.

❖ Memory Hole at 15M-16M (Default: Disabled)

This option is used to determine whether the 15 M-16 M address field of memory is reserved for the ISA expansion card.

❖ System BIOS Cacheable (Default: Disabled)

Select "Enabled" to allow catching of the system BIOS which may improve performance. If any other program writes to this memory area, a system error may result.

Integrated Peripherals



Integrated Peripherals Menu

❖ **SIS OnChip IDE Device**

Press <Enter> to set onchip IDE device. Please refer to page 32.

❖ **SIS OnChip PCI Device**

Press <Enter> to set onchip PCI device. Please refer to page 33.

❖ **Onboard SuperIO Device**

Press <Enter> to set onchip onboard SuperIO device. Please refer to page 34.

❖ **Onboard Lan Boot ROM (Default: Disabled)**

This option is used to decide whether to invoke the boot ROM of the onboard LAN chip.

❖ **Init Display First (Default: PCI Slot)**

This option is used to set which display device will be used first when your PC starts up.



SIS Onchip IDE Device Menu

❖ **Internal PCI/IDE (Default: Both)**

This option is used to set the ports of onboard IDE.

❖ **IDE Primary/Secondary Master/Slave PIO (Default: Auto)**

These four items let you assign which kind of PIO (Programmer Input/Output) is used by IDE devices. Choose "Auto" to let the system auto detect which PIO mode is the best or select a PIO mode from 0-4

❖ **Primary/Secondary Master/Slave Ultra DMA (Default: Auto)**

Ultra DMA technology provides faster access to IDE devices. If you install a device that supports Ultra DMA, change the appropriate items on this list to Auto.

❖ **IDE DMA transfer access (Default: Enabled)**

This option is used to enable or disable IDE DMA transfer access.

❖ **IDE Burst Mode (Default: Enabled)**

This option is used to enable or disable IDE burst mode.



SIS OnChip PCI Device Menu

❖ **SIS USB Controller (Default: Enabled)**

This option is used to enable or disable SIS USB controller.

❖ **USB 2.0 Supports (Default: Enabled)**

This option is used to enable or disable USB 2.0.

❖ **USB Keyboard Support (Default: Enabled)**

This option is used to set USB keyboard support.

❖ **USB Mouse Support (Default: Enabled)**

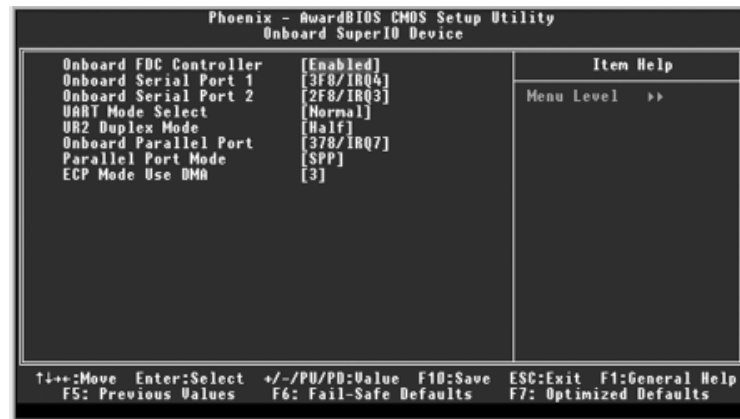
This option is used to set USB mouse support.

❖ **SIS AC97 AUDIO (Default: Enabled)**

This option is used to enable or disable SIS AC97 audio.

❖ **SIS 10/100M ETHERNET (Default: Enabled)**

This option is used to enable or disable SiS 10/100 M ethernet.



Onboard SuperIO Device Menu

❖ **Onboard FDC Controller (Default: Enabled)**

This option is used to set whether the onboard FDC controller is enabled.

❖ **Onboard Serial Port 1/2 (Default: 3F8/IRQ4 / 2F8/IRQ3)**

These options are used to assign the I/O address and interrupt request (IRQ) for the onboard serial port 1/2.

Note: Do not try to set the same values for serial port 1 and 2.

❖ **UART Mode Select (Default: Normal)**

Use this option to select the UART mode. The setting value is determined by the infrared module installed on the board.

❖ **UR2 Duplex Mode (Default: Half)**

This option is available when UART 2 mode is set to either ASKIR or IRDA. This option enables you to determine the infrared function of the onboard infrared chip.

❖ **Onboard Parallel Port (Default: 378/IRQ7)**

This option allows you to determine onboard parallel port controller I/O address and interrupt request (IRQ).

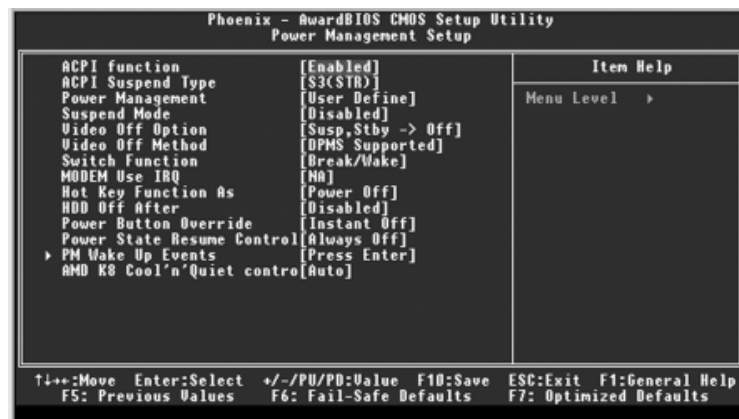
❖ **Parallel Port Mode (Default: SPP)**

Select an address and corresponding interrupt request for the onboard parallel port.

❖ **ECP Mode Use DMA (Default: 3)**

Select a DMA channel for the parallel port when using the ECP mode. This field is only configurable if Parallel Port Mode is set to ECP.

Power Management Setup



Power Management Setup Menu

❖ ACPI function (Default: Enabled)

ACPI stands for “Advanced Configuration and Power Interface”. ACPI is a standard that defines power and configuration management interfaces between an operating system and the BIOS. In other words, it is a standard that describes how computer components work together to manage system hardware. In order to use this function, the ACPI specification must be supported by the OS (for example, Windows2000 or WindowsXP).

❖ ACPI Suspend Type (Default: S3(STR))

This option is used to set the energy saving mode of the ACPI function. When you select “S1 (POS)” mode, the power will not shut off and the supply status will remain as it is, in S1 mode the computer can be resumed at any time. When you select “S3 (STR)” mode, the power will be cut off after a delay period. The status of the computer before it enters STR will be saved in memory, and the computer can quickly return to previous status when the STR function wakes. When you select “S1 & S3” mode, the system will automatically select the delay time.

❖ Power Management (Default: User Define)

This option is used to set the power management scheme.

❖ Suspend Mode (Default: Disabled)

This option is used to set the idle time before the system enters into sleep status.

❖ Video Off Option (Default: Susp, Stby - > Off)

This option is used to set video off option.

❖ **MODEM Use IRQ (Default: NA)**

This option is used to set the IRQ in which the modem can use. The system will automatically wake up when the modem receives an incoming call.

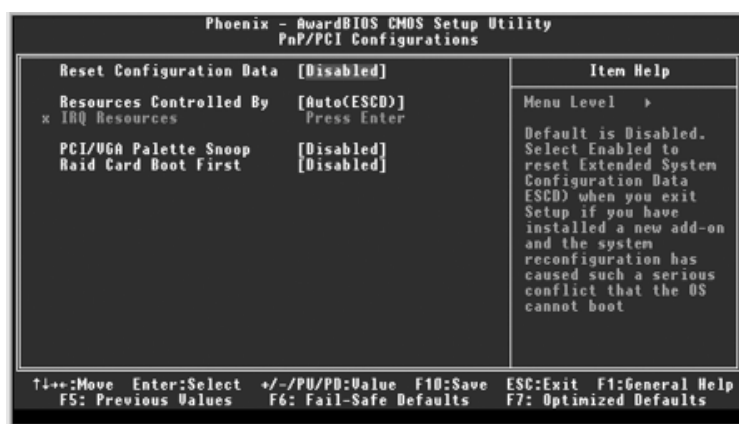
❖ **PM Wake Up Events**

Press <Enter> to set the items of PM Wake Up Events.

❖ **AMD K8 Cool 'n' Quiet Control (Default:Auto)**

When this item is set as "Auto", AMD Cool 'n' Quiet. technology controls your system's level of processor performance automatically, dynamically adjusting the operating frequency and voltage according to the task at hand.

PnP/PCI Configurations



PnP/PCI Configurations Menu

❖ Reset Configuration Data (Default: Disabled)

This option is used to set whether the system is permitted to automatically distribute IRQ DMA and I/O addresses when each time the machine is turned on.

❖ Resources Controlled By (Default: Auto (ESCD))

This option is used to define the system resource control scheme. If all cards you use support PnP, then select Auto (ESCD) and the BIOS will automatically distribute interruption resources. If the ISA cards you installed not supporting PnP, you will need to select “Manual” and manually adjust interruption resources in the event of hardware conflicts. However, since this motherboard has no ISA slot, this option does not apply.

❖ IRQ Resources

Press the <Enter> key, then manually set IRQ resources.

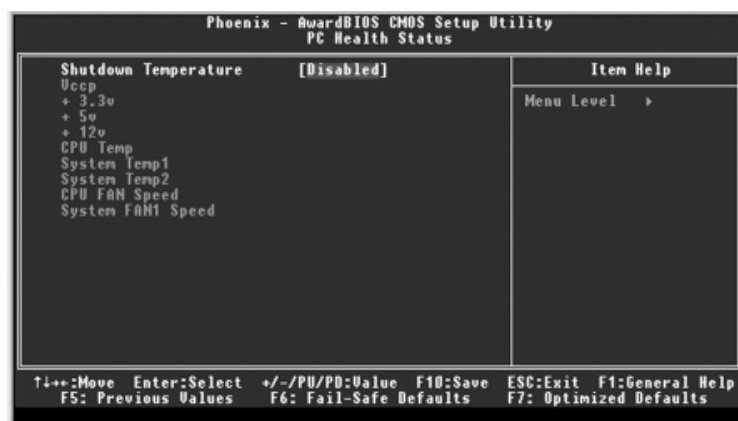
❖ PCI/VGA Palette Snoop (Default: Disabled)

If you use a nonstandard VGA card, use this option to solve graphic acceleration card or MPEG audio card problems (e.g., colors not accurately displayed).

❖ Raid Card Boot First (Default: Disabled)

This option is used to set Raid card boot first.

PC Health Status

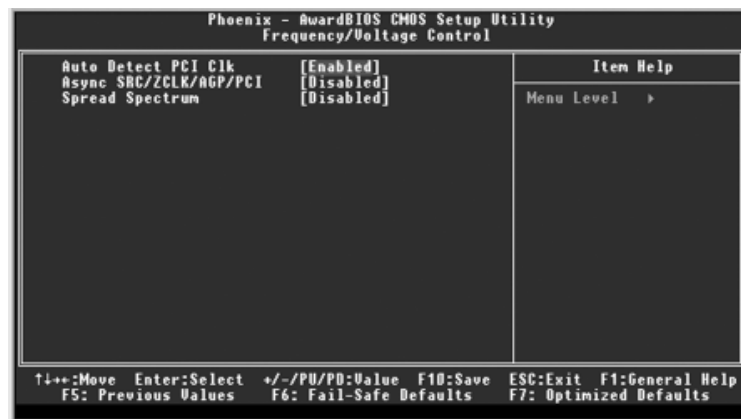


PC Health Status Menu

❖ Shutdown Temperature (Default: Disabled)

This option is used to set the system temperature upper limit. When the temperature exceeds the setting value, the motherboard will automatically cut off power to the computer.

Frequency/Voltage Control



Frequency/Voltage Control Menu

❖ Auto Detect PCI Clk (Default: Enabled)

This option is used to set whether the clock of an unused PCI slot will be disabled to reduce electromagnetic interference.

❖ Async SRC/ZCLK/AGP/PCI (Default: Disabled)

Enabling this item can fix the SRC/ZCLK/AGP/PCI in a safe value to ensure the PCI/SATA device stability when CPU overlocks.

❖ Spread Spectrum (Default: Disabled)

If you enable spread spectrum, it can significantly reduce the EMI (ElectroMagnetic Interference) generated by the system.

Load Fail-Safe Defaults

Select this option and press <Enter>, it will pop up a dialogue box to allow you to load default set by BIOS. Press <Y> and then <Enter> to load default. Press <N> and <Enter>, it will not load. The defaults set by BIOS have set the basic functions of system to ensure the stability of system. But if your computer fails to properly run, you may load the default to make the system recover normal, then carry out failure testing in next step. If you only want to load the default as an option, you can select this option and press the key <F6>.

Load Optimized Defaults

Select this option and press <Enter>, it will pop up a dialogue box to let you load the optimized defaults set by BIOS. Press <Y> and <Enter> to load the optimized defaults. Press <N> and <Enter>, it will not load. The defaults set by BIOS have set the optimized performance parameters of system to improve the performances of system components. But if the optimized performance parameters to be set cannot be supported by your hardware devices, it will cause system to make mistakes or not stable. If you only want to load the optimized defaults as an option, you can select this option and press the key <F7>.

Set Supervisor/User Password

The preferential grade of supervisor password is higher than user password. You can use supervisor password to start into system or enter into CMOS setting program to amend the settings. You can also use user password to start into system, or enter into CMOS setting menu to check, but if you have set supervisor password, you cannot amend the settings.

When you select Set Supervisor / User Password, it will appear the following message in the center of screen, which will help you to set password.

Enter Password:

Enter your password, not exceeding 8 characters, then press <Enter>, the password you have entered now will replace the previous password. When the system requires you to determine this password, you can enter this password and press <Enter>.

If you do not need this setting, you can press <Enter> when the screen prompts you to enter password, and the screen will appear the following message to show this function invalid. In this case, you can freely enter into system and CMOS setting program.

PASSWORD DISABLED!!!
Press any key to continue...

Under the menu “Advanced BIOS Features Setup”, if you select “System” in Security Option, the screen will prompt you to enter password once the system is started or you want to enter CMOS setting program. If the password is wrong, it will refuse you to continue.

Under the menu “Advanced BIOS Features Setup”, if you select “Setup” in Security Option, the screen will prompt you to enter password only when you enter CMOS setting program.

Save & Exit Setup

Select this option and press <Enter>, it will show the following message in the center of screen:

SAVE to CMOS and EXIT (Y/N) ? Y

At this time, press <Y> to save your amendment in CMOS and exit from this program; press <N>/<ESC> to return main menu.

Exit Without Saving

Select this option and press <Enter>, it will show the following message in the center of screen:

Quit Without Saving (Y/N) ? N

At this time, press <Y> to exit CMOS but it does not save your amendment in CMOS; press <N>/<ESC> to return main menu.

Chapter 4

The utility CD that comes with the motherboard contains useful software and several utility drivers that enhance the motherboard features.

This chapter includes the following information:

- ❖ Utility CD content
- ❖ Start to install drivers

Utility CD Content

This motherboard comes with one Utility CD. To begin using the CD, simply insert the CD into your CD-ROM drive. The CD will automatically displays the main menu screen.

1. Install Drivers

Using this choice, you can install all the drivers for your motherboard. You should install the drivers in order, and you need to restart your computer after the drivers all installed.

- | | |
|-----------------|-----------------------------|
| A. IDE Driver | B. SiS SATA RAID (optional) |
| C. AGP Driver | D. VGA Driver |
| E. DirectX 9.0b | F. USB 2.0 Driver |
| G. Audio Driver | H. LAN Driver |

2. Accessories

Use this option to install additional software programs.

- A. SuperUtility
 - a. SuperLogo

SuperLogo can display user-designed graphics and pictures, such as company logo or personal photos, thus making your PC more personalized and friendly.
 - b. SuperStep

SuperStep is a powerful and easy-to-use tool for overclocking. You can quickly increase your CPU's frequency through its user-friendly interface. It will enhance your CPU's performance and meet all kinds of DIY requirements.
 - c. SuperUpdate

SuperUpdate function can help update the BIOS through internet directly. If you want to know the detail information, please visit our website:
<http://www.foxconnchannel.com/>

- B. Adobe Reader
- C. Norton Internet Security 2004

3. Browse CD

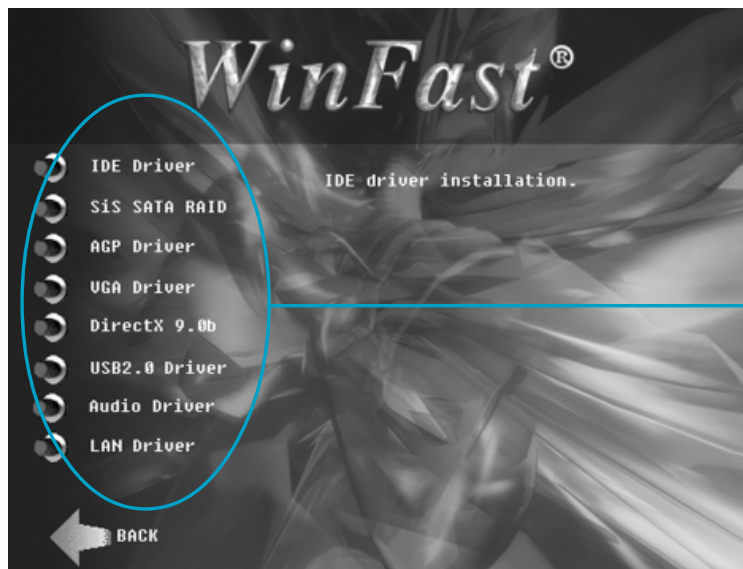
Click here to browse CD content.

4. Homepage

Click here to visit FOXCONN motherboard homepage.

Start to install drivers

Select <Install Driver>, and click it to enter the install drivers screen. You can select the driver that you want to install and begin the setup steps.



Follow screen order to install motherboard drivers